

Application No.: 09/849,452
M. Lassner *et al.*
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Attorney Docket No: 0137.210US

Listing of Claims:

The following listing of claims replaces all prior versions and listings of claims in the application. Additions are indicated by underlining and deletions are indicated by ~~strikethrough~~.

1.- 93. (Canceled)

94. (Canceled)

95. (Currently Amended) A recombinant bio-detector comprising:

(i) a disease resistance gene (R gene) encoding a product, wherein the encoded product is capable of activation by at least one elicitor; and

(ii) a reporter operably linked to a promoter responsive to the activated product of the R gene
~~The recombinant bio-detector of claim 94, wherein the R gene comprises a shuffled R gene, wherein the shuffled R gene product provides enhanced resistance to pathogens or environmental stressors.~~

96. (Previously Presented) The recombinant bio-detector of claim 95, wherein the R gene encodes a product capable of activation by a corresponding elicitor.

97. (Previously Presented) The recombinant bio-detector of claim 96, wherein the corresponding elicitor is an Avr (avirulence) gene product.

98. (Canceled)

99. (Currently Amended) The recombinant bio-detector of claim 94~~95~~, wherein the promoter comprises a systemic acquired resistance (SAR) pathway promoter.

100. – 103. (Canceled)

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104. (Currently Amended) A plant or plant cell comprising the recombinant bio-detector of claim 95, wherein one or more component of the recombinant bio-detector is extrachromosomally replicated The plant or plant cell of claim 103, wherein the one or more extrachromosomally replicated component of the recombinant bio-detector comprises a non-integrating viral vector.

105.-128. (Canceled)

129.-130. (Canceled)

131. (Currently Amended) The recombinant bio-detector of claim 9495, wherein the elicitor is a ligand that is a molecule produced by a plant in response to environmental stressors such as heat, drought, uv irradiation, and wounding.

132. (Currently Amended) The recombinant bio-detector of claim 9495, wherein the elicitor is a ligand that is a human pathogen and/or animal pathogen.